

CHEM 161 : General Chemistry I

Credits: 3

Class Hours: 3 lecture

Prerequisites: Qualified for MATH 103.

Corequisite Courses:

CHEM 161L

Description: This course is an introduction to the basics of college chemistry. Topics include chemical kinetics, chemical equilibrium, acid-bases, acid-base equilibrium, solubility equilibrium, entropy, electrochemistry, coordination, and nuclear chemistry.

Semester Offered: Fall, Spring

Designation:

Diversification: Physical Sciences — DP

Course Student Learning Outcomes (CSLOs):

1. Use various quantitative and algebraically-based mathematical methods to solve problems related to dimensional analysis, graphic analysis, statistical analysis and molar stoichiometry.
2. Use appropriate qualitative and quantitative chemical symbolism, nomenclature, chemical classification scheme, atomic and molecular modeling and bonding theories.
3. Classify properties of substances and their states as being pure or mixtures.
4. Apply observation, classification, prediction, inference, measurement, making operational definitions, hypothesizing, experimentation, modeling, theorizing and evaluation as a means to solve chemical-related problems.
5. Integrate a knowledge of chemistry in addressing environmental problems, examining the benefits and hazards of chemical applications and discussing questions of scientific ethics.